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Short Communication

New record of the genus *Iniistius* Gill, 1862 (Perciformes: Labridae) from Odisha coast

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Abstract

The paper reports two-spot razor fish, *Iniistius bimaculatus* (Rüppell, 1829) (Perciformes: Labridae), from Boxipalli fish landing centre, that forms the first report of the genus along the Odisha coast. Current record adds a new genus in the list of ichthyofaunal diversity of Odisha. This paper gives detail morphologic and meristic characters of *Iniistius bimaculatus* (Rüppell, 1829) along with photographic evidence from the Odisha coast. The occurrence records of this coral inhabitant fish gives an indication of possible coral reef or ridges along the Gopalpur coastal areas.

Keywords: First Report, Gopalpur, Ichthyofauna, Labroidei, Two-Spot Razorfish

Introduction

The fish family Labridae contains about 71 genera and a total of 519 species (Nelson *et al*., 2016). However, currently this family is estimated to have 556 valid species worldwide (Fricke *et al*., 2019 a). In the Family Labridae, the genus *Iniistius* consists of 23 valid species (Fricke *et al*., 2019 b) and characterised in having the origin of the dorsal fin over or less than half an orbit diameter behind the eye and the first two dorsal spines are flexible (Randall and Earle, 2002). In India, nine species of the genus *Iniistius* Gill, 1862 were reported, namely *Iniistius bimaculatus* (Rüppell, 1829), *I. cyanifrons* (Valenciennes, 1840) (Day, 1878); *I. rajagopalani* (Venkataramanujam *et al*., 1978); *I. twistii* (Bleeker, 1856) (Akhilesh *et al*., 2012); *I. naevus* Allen and Erdmann, 2012, *I. griffithsi* Randall, 2007 (Allen and Erdmann 2012); *I. dea* (Temminck and Schlegel, 1845), *I. pavo* (Valenciennes, 1840) and *I. pentadactylus* (Linnaeus, 1758) (Mogalekar *et al*., 2018). However, none of them were recorded from Odisha coast till date.

Present paper reports a species of the genus *Iniistius* for the first time along Odisha coast based on four samples collected from Boxipalli fish landing centre, Gopalpur, Odisha.

Material and Methods

During local survey four fish samples belonging to the family Labridae were collected from Boxipalli fish landing centre (19°15'8.83"N, 84°54'13.14"E), Gopalpur, Odisha. After collection, the specimens were photographed, preserved in 10% formaldehyde solution and morphometric measurements were taken. All measurements were made by digital calipers and recorded to the nearest 0.1 mm. The counting of the scales was carried out with Leica S9i digital stereo microscope. The collected specimens were subsequently identified as *Iniistius bimaculatus* (Rüppell, 1829) following literatures (Gomon and Randall, 1984; Randall and Earle, 2002). The specimens were registered and deposited with Estuarine Biology Regional Centre, Zoological Survey of India, Gopalpur-on-Sea, Odisha with registration number F11389.

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Results

Systematic Account

Class ACTINOPTERYGII

Order PERCIFORMES

Suborder LABROIDEI

Family LABRIDAE

Genus *Iniistius* Gill, 1862

Iniistius bimaculatus (Rupell, 1829)

1829. *Xyrichthys bimaculatus* Rüppell, *Atlas zu der Reiseimnördlichen Afrika*, *Fische des Rothen Meeres*: 43, Pl. 10, fig. 2 (Bay of Massawa, Eritrea, Red Sea).

2011. *Iniistius bimaculatus*: Parenti & Randall, *Smithiana, Bulletin No*. 13: 35.

Material examined: EBRC/ZSI F11389, 4 ex, 140 – 164 mm SL, Boxipalli fish landing centre (19˚15'8.83"N; 84˚54'13.14"), Odisha, India, 10.xi.2019, coll. Swarup Ranjan Mohanty.

Diagnosis: Body deep and flattened, covered with cycloid scales, its depth 2.7-2.8 in SL. Pre-anal length 1.9-2.0 in standard length (SL). Head 3.0-3.3 in SL; compressed and edge of the dorsal profile sharp and strongly lower in front of eye. Eye small, 5.5-5.6; inter-orbital space, 5.5-5.6 in head length (HL). Snout very arduous and compressed, jaws prominent with 2 large slender canines situated anteriorly in each jaw. Pre-dorsal length 3.6-3.8 in SL. Dorsal fin continuous and origin at hind edge of eye. Lateral lines interrupted below posterior portion of dorsal fin, with 24-26 pored scales. Cheeks with 8 rows of rudimentary scales. Dorsal fin with 9 spines and 14 soft rays; first 2 dorsal spines flexible and size of these spines longer than others, but with a gap between second and third spines, the membrane deeply notched, but not to base of fin. Anal fin with 1 spines and 11 soft rays; pectoral fin well developed with 11-12 rays; pelvic fins with 1 spine and 5 rays; caudal fin asymmetrically rounded with 14 rays.

Table 1. Morphologic and meristic data of ***Iniistius bimaculatus*** (Rüppell, 1829)

Standard length	140 – 164 mm
In Standard Length	
Head length	3.0–3.3
Predorsal length	3.6–3.8
Body depth	2.7–2.8
Pectoral fin length	2.7–2.8
Pelvic fin length	3.8–4.2
Caudal peduncle length	10.9–14.9
Caudal peduncle depth	6.4–7.5
In Head Length	
Snout length	1.9–2.0
Eye diameter	5.5–5.6
Interorbital space	5.5–5.6

Figure 1. *Iniistius bimaculatus* (Rüppell, 1829), collected from Boxipalli fish landing centre, Gopalpur, Odisha.

Colour: Fresh specimen's bright pink, with a black spot below lateral line and end of pectoral fin; body is covered with pale orange dots mainly along lateral line; edge of head is pale blue and tinge yellow colour on snout. Dorsal-fin tip darker pink in colour; caudal-fin with pale blue or light orange-yellow coloured vertical lines; anal-fin with a pale blue line.

Discussion

Along Indian coast only nine species of genus *Iniistius* is reported, but not a single species of this genus was recorded along Odisha coast. *Iniistius bimaculatus* is the first ever species of the genus *Iniistius* to be reported from Boxipalli fish landing centre, Gopalpur, Odisha. Previously some species of the genus *Iniistius* were treated under the genus *Xyrichtys*. Randall and Earle (2002) reclassified the Indo-Pacific species of the genus *Xyrichtys* to the genus *Iniistius* Gill, 1862.

Day (1878) listed *Iniistius bimaculatus* as *Novacula punctulata* and stated to have collected from Madras

in 1852. CMFRI (2009) also reported this species from Chennai. Saravanan *et al.* (2011) recorded this as *Xyrichtys bimaculatus* from Mangalore, Karnataka. Further, the species was reported from Visakhapatnam, Andhra Pradesh (Veena *et al*., 2012) and Kerala coast (Bijukumar and Raghavan, 2015). Silambarasan *et al*. (2016) reported *I. bimaculatus* from Tamil Nadu coast, while Joshi *et al.* (2016) listed it from Gulf of Mannar. It was also reported from Digha, West Bengal (Pradhan and Mahapatra, 2017). Present paper reports the species first time from Odisha coast. These fishes are normally associated with coral reef areas, and occurrence of this species gives the confirmatory report of presence of coral patches or ridges along the Gopalpur coast, Sounthern part of Odisha coast that reported earlier.

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